

### Fish, Plants, and Animals Fact Sheet



*The Columbia River is home to endangered species and species of concern, such as salmon*

The Columbia River is home to many fish, plants, and animals including endangered species and species of concern. The Columbia River is also home to important habitats such as shorelines and wetlands. Construction, operation, and rail and vessel transportation related to the proposed project could affect these species and their habitats.

#### **What impacts on fish, plants, and animals were studied?**

The study looks at how construction and operation of the proposed project could affect fish, plants, and animals. For construction, the study analyzes impacts from noise, ground disturbance, and pile-driving and dredging activities. The study also looks at how terminal operations and increased rail and vessel transportation could affect fish, plants, and animals from increased noise (on land and underwater), changes to habitat, shoreline erosion, spills and coal dust on land and in water.

#### **How were impacts on fish, plants, and animals analyzed?**

The study describes the current conditions for fish, plants, animals and wetland habitat in the project area. Information was used from multiple databases, maps, studies, and site visits. The study considers construction, operation, and transportation related to the proposed project. It then identifies potential impacts on fish, plants, and animals. Finally, the study includes actions that can mitigate or offset potential impacts. The most detailed analysis was conducted for the areas within or near the project area.

## How would the proposed project affect fish, plants, and animals?

### Construction

Potential impacts include temporary and permanent impacts. Temporary impacts related to construction include shading aquatic habitats during construction of the new docks, displacing animals, and potential hazardous material spills from construction equipment. Dredging and removal of piles would temporarily increase the sediment level in the water. The temporary impacts are not likely to result in significant impacts on fish, plants, or animals.

Fish, birds, and marine mammals could be injured or killed from noise generated by pile-driving and other construction activities. Sound levels could exceed the underwater noise threshold for behavioral changes in fish for up to about four miles from the pile-driving. A bubble curtain or other methods to reduce noise would mitigate impacts on fish and marine mammals during construction. Construction would only happen during approved times to reduce impacts on fish.

Permanent impacts include:

- Removing 202 acres of animal habitat. Most of the area is already disturbed by previous industrial activities on the site. This includes loss of approximately 24 acres of wetlands.
- Removing 4,312 square feet of habitat from the river bottom of the Columbia River to install 630 piles for the new docks.
- Removing 500,000 cubic yards of sediment from the Columbia River (affecting 48 acres of deepwater habitat) from dredging.
- Removing 11 acres of aquatic habitat (ditches and ponds) in the project area.
- Removing creosote-treated piles from 225 linear feet of existing timber pile levees. This could temporarily suspend sediment and toxic substance associated with creosote-treated piles, but would permanently remove a source of creosote from the Columbia River.

### Operations

The study found the docks and vessels would shade aquatic habitat and affect fish and aquatic vegetation. Maintenance dredging would alter aquatic habitat. Noise generated by the proposed project during operations would affect fish, birds, and animals. The noise would be similar to that from existing industrial and commercial activities in the area.

Coal dust would be generated during operation of the proposed project by moving coal onto the project area, around the project area, and onto vessels. Coal dust would also become airborne from the large stockpiles that would be located within the project area. The study found the concentrations of coal dust could be highest within and near the project area and would decline to low levels within a few thousand feet of the project area. Coal dust could affect fish, animals, and vegetation. Coal particles could affect aquatic wildlife by smothering, damage to feeding or respiratory organs. Coal particle accumulations could affect the amount of light that reaches vegetation.

### Rail Traffic

At full operation, the proposed project would increase rail traffic by 16 trains per day (8 loaded trains arriving and 8 empty trains departing). The increase in rail traffic could result in coal dust depositions that could affect fish, plants, and animals. The study found there would likely be no significant impacts from coal dust on fish, plants, and animals. A separate fact sheet on Coal Dust describes a federal study that evaluated the impacts of coal dust from trains on water and soil. The fact sheet also describes what Millennium can do to reduce impacts related to coal dust.



### **Vessel Traffic**

At full operation, the proposed project would add 840 vessels per year (840 empty incoming vessels and 840 loaded outgoing vessels) to the lower Columbia River. The increased vessel traffic in the lower Columbia River could result in fish being stranded on beaches because of wakes from vessels. In general, noise and wakes caused by vessels in and around the Columbia River would be similar to existing conditions. However, there could be an increased risk of potential vessel strikes of seals and sea lions.



*Several common bird species, such as the great blue heron shown above, were recorded near the project area during site visits*

## **What can Millennium do to reduce impacts on fish, plants, and animals?**

### **Permits and Plans**

The following permits and plans would be required for the proposed project:

- Shoreline Substantial Development and Conditional Use Permits
- Critical Areas Permit
- Clean Water Act Section 401 Water Quality Certification

- Hydraulic Project Approval
- Clean Water Act Section 404 Authorization
- Endangered Species Act Consultation with U.S. Fish and Wildlife Service and National Marine Fisheries Service

### Mitigation Measures

The study identifies the following mitigation measures to reduce impacts on fish, plants, and animals:

- Decrease noise impacts from pile-driving by using bubble curtains and best practices or an equivalent technology to reduce noise. Monitor fish and wildlife during pile-driving and dredging activities.
- Conduct fish surveys near the docks for key fish species such as eulachon. Conduct surveys for rare plants and aquatic plants before construction starts and plan to reduce impacts if any are found.
- Implement a vegetation plan to reduce plant loss during construction and replant areas temporarily disturbed with native plants.
- Develop and implement a wetland mitigation plan with the U.S. Army Corps of Engineers, Ecology, and Cowlitz County.
- Monitor and reduce coal dust during operations at the project area. If coal-dust levels exceed an established level for particulate matter, action will be taken to reduce coal-dust emissions. Coal-dust monitoring will be conducted at the coal piles, on the dock, and where the rail line enters the coal export terminal. Information will be reported to Southwest Clean Air Agency, Cowlitz County, and the Washington State Department of Ecology (Ecology).
- Develop and implement a coal spill containment and cleanup plan to limit exposure of spilled coal to the terrestrial and aquatic environments.
- Reduce coal-dust emissions from rail cars. Coal on trains must be appropriately shaped and surfactant applied at the mine site and in Pasco, Washington.

A detailed list of mitigation measures can be found in the Draft Environmental Impact Statement (EIS) in Chapter 4, Section 4.3, *Wetlands*, Section 4.6, *Vegetation*, Section 4.7, *Fish*, Section 4.8, *Wildlife*, and Section 5.7, *Coal Dust*.

## Where can I find more information?

Chapter 4 of the Draft EIS contains detailed information about the natural environment. Section 4.3, *Wetlands*; Section 4.6, *Vegetation*; Section 4.7, *Fish*; and Section 4.8, *Wildlife*, present information on current conditions, potential impacts, and analysis of effects, relating to the proposed project. The following sections of the Draft EIS also include detailed information and analyses relevant to fish, plants, and animals: Section 4.5, *Water Quality*; Chapter 5, Section 5.4, *Vessel Transportation*; Section 5.5, *Noise and Vibration*; and Section 5.7, *Coal Dust*.

Additional fact sheets that discuss water quality, surface water, vessel transportation, noise and vibration, and coal dust are also available.

Visit [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov) for more information on the proposed project and the Draft EIS.